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LTD., MOTOR CAR AND RAILWAY CARRIAGE & WAGON BUILDERS, a Czechoslovakian Company, of Kartouzská 200, Prague-Smichov, Czechoslovakia.)

I, WILLIAM JOHN TENNANT, a British Subject, of 111/112, Hatton Garden, London, E.C.1, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

The invention relates to a vehicle, more particularly a trolley bus, wherein each driving wheel is provided with an electric motor disposed inside the rim of the wheel, and the invention consists in that the driving electric motor together with the wheel driven by it are mounted on the end of a half axle swinging in a transverse plane and pivoted at or near the longitudinal axis of the vehicle.

The construction according to the invention has the advantage that the electric motor may be dismounted with the transmission members, without having to dismount the wheel or the half axle. In addition, the half axle may be bent as desired to answer the particular requirements of each case, so that for example the pivoting point on the vehicle may be arranged very low. Due to these circumstances, and due to the fact that the electric motor is disposed in an otherwise unoccupied space which is outside the contour of the vehicle body and which has in any case to be provided for the wheel, the body and in particular the floor thereof may be positioned substantially lower and more roomy.

The invention is illustrated diagrammatically by way of example in the accompanying drawing, which shows a section transversely to the longitudinal direction of a vehicle through a floating semi-axle with motor and wheel pertaining thereto.

The floating semi-axle 1, which may be either straight, or bent as indicated in chain lines, is pivoted at 2 to the centre frame 3 of the vehicle. Advantageously, the semi-axle may be hollow, so that it can serve for accommodating the leads supplying current to the electric motor.

On the end of the semi-axle, the stator 4

electric motor, pinion 6 sec-

its movement

stationary spindles to an internally toothed gear 8. The gear 8 is constructed on the casing-like wheel body 9 which is journaled in any suitable manner on the axle 1. In addition, the wheel body 9 is provided with a brake drum 10, and brake shoes 11 carried by a disc 12 secured to the semi-axle 1 are adapted to be brought into engagement with the said brake drum in the usual manner. The end opening of the wheel body 9 is closed by a cover 13 which is readily detachable for inspecting, effecting repairs or completely removing the electric motor. Instead of the single tyre 14, a double tyre may be mounted on the wheel body.

Having now particularly described and ascertained the nature of the said invention and in what manner the same is to be performed, as communicated to me by my foreign correspondents, I declare that what I claim is:—

1. A vehicle, more particularly a trolley bus, wherein each driving wheel is provided with an electric motor disposed inside the rim of the wheel, characterised in that the driving electric motor together with the wheel driven by it are mounted on the end of a half axle swinging in a transverse plane and pivoted at or near the longitudinal axis of the vehicle.

2. A vehicle as claimed in claim 1, characterised in that the half axles are made hollow for accommodating the leads supplying current to the electric motors.

3. A vehicle as claimed in claim 1 or 2, characterised in that the bell-like wheel body or hub of the wheel is closed on the outside by a detachable cover protecting the electric motor.

4. A vehicle according to any of the preceding claims, characterised in that for transmitting the movement from the rotor of the motor to the wheel body, these parts have a pinion (6) and an internally toothed gear (8) respectively, between which are interposed gear wheels (7) having stationary spindles.

5. A vehicle as claimed in any of the preceding claims, characterised in that

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